SEQUENCE LISTING

<110> DUBENSKY Jr., Thomas W.
      BROCKSTEDT, Dirk G.
      BAHJAT, Keith
      HEARST, John E.
      COOK, David

<120> MODIFIED FREE-LIVING MICROBES, VACCINE
      COMPOSITIONS AND METHODS OF USE THEREOF

<130> 282172002800

<140> Not Yet Assigned
<141> 2004-02-06

<150> US 60/446,051
<151> 2003-02-06

<150> US 60/449,153
<151> 2003-02-21

<150> US 60/490,089
<151> 2003-07-24

<150> US 60/511,869
<151> 2003-10-15

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<151> 2004-02-02

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<211> 1991
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<213> Listeria monocytogenes

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<220>
<223> PCR Primer

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<211> 24
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<213> Artificial Sequence

<220>
<223> PCR Primer

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<210> 9
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4

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6

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<211> 2042
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8

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<220>
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<400> 13
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<210> 14
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<220>
<223> PCR Primer

<400> 14
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<210> 15
<211> 24
<212> DNA
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<220>
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<400> 15
ctcctcgagt gcggccgcaa gctt   24

<210> 16
<211> 21
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<220>
<223> PCR Primer

<400> 16
gtcaaaacat acgctcttat c   21

<210> 17
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<212> DNA
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<220>
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<400> 17
acataatcag tccaaagtag atgc   24

<210> 18
<211> 2762
<212> DNA
<213> Bacillus anthracis

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<210> 19

<211> 1908
<212> DNA
<213> Bacillus anthracis

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<210> 20
<211> 9
<212> PRT
<213> Murine

<400> 20
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<210> 21
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 21
Ser Pro Ser Tyr Ala Tyr His Gln Phe
 1   5

<210> 22
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 22
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<210> 23
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<220>
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<400> 23
aggtcttttt cagttaacta tcctctcctt gattctagtt at   42

<210> 24
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 24
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<210> 25
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 25
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<210> 26
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<220>
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12

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<210> 30
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<400> 30
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<400> 31
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<210> 33
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<220>
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<400> 33
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<210> 34
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 34
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<210> 35
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<212> DNA
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<220>
<223> PCR Primer

<400> 35
cgatagtcca agttatgcat atcatcaatt tgc                            33

<210> 36
<211> 34
<212> DNA
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<220>
<223> PCR Primer

<400> 36
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<210> 37
<211> 9
<212> PRT
<213> E. coli

<400> 37
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<210> 38
<211> 25
<212> DNA
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<220>
<223> PCR Primer

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<210> 39
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<220>
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<400> 39
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<210> 40
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 40
gacaagcgtt ggcttttgca cttc   24

<210> 41
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 41
caaaagccaa cgcttgtcta agtgtatgaa tgaaaaccga gtgg   44

<210> 42
<211> 25

```
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 42
aagtgtatga atgaaaccg agtgg                                    25


<210> 43
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 43
catataaagg ttccacaatt gccttttc                               28


<210> 44
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 44
gaagcagaaa tgaagccaat actcaatc                               28


<210> 45
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 45
ggttccacaa ttgccttttc aataatc                                27


<210> 46
<211> 6
<212> PRT
<213> Bacillus anthracis


<400> 46
Lys Val Val Lys Asn Lys
 1               5


<210> 47
<211> 12
<212> DNA
<213> Bacillus subtilis
```

<220>
<221> misc_feature
<222> 5, 6, 7, 8
<223> n = A,T,C or G

<400> 47
gaacnnnngt tc   12

<210> 48
<211> 331
<212> PRT
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 48
Met Lys Lys Ile Met Leu Val Phe Ile Thr Leu Ile Leu Val Ser Leu
 1   5   10   15
Pro Ile Ala Gln Gln Thr Glu Ala Lys Asp Ala Ser Ala Phe Asn Lys
            20   25   30
Glu Asn Ser Ile Ser Ser Met Ala Pro Pro Ala Ser Pro Pro Ala Ser
         35   40   45
Pro Lys Thr Pro Ile Glu Lys Lys His Ala Asp Glu Ile Asp Ser Pro
      50   55   60
Ser Tyr Val Tyr His Gln Phe Ala Ala Asp Gln Ala Arg Glu Leu Ile
65   70   75   80
Asn Ser Trp Val Glu Ser Gln Thr Asn Gly Ile Ile Arg Asn Val Leu
               85   90   95
Gln Pro Ser Ser Val Asp Ser Gln Thr Ala Met Val Leu Val Asn Ala
            100   105   110
Ile Val Phe Lys Gly Leu Trp Glu Lys Thr Phe Lys Asp Glu Asp Thr
            115   120   125
Gln Ala Met Pro Phe Arg Val Thr Glu Gln Glu Ser Lys Pro Val Gln
      130   135   140
Met Met Tyr Gln Ile Gly Leu Phe Arg Val Ala Ser Met Ala Ser Glu
145   150   155   160
Lys Met Lys Ile Leu Glu Leu Pro Phe Ala Ser Gly Thr Met Ser Met
               165   170   175
Leu Val Leu Leu Pro Asp Glu Val Ser Gly Leu Glu Gln Leu Glu Ser
            180   185   190
Ile Ile Asn Phe Glu Lys Leu Thr Glu Trp Thr Val Leu Gln Glu Leu
            195   200   205
Asn Val Thr Val Arg Thr Ser Ser Asn Val Met Glu Glu Arg Lys Ile
      210   215   220
Lys Val Tyr Leu Pro Arg Met Lys Met Glu Glu Lys Tyr Asn Leu Thr
225   230   235   240
Ser Val Leu Met Ala Met Gly Ile Thr Asp Val Phe Ser Ser Ser Ala
            245   250   255
Asn Leu Ser Gly Ile Ser Ser Ala Glu Ser Leu Lys Ile Ser Gln Ala
            260   265   270
Val His Ala Ala His Ala Glu Ile Asn Glu Ala Gly Arg Glu Val Val
      275   280   285
Gly Ser Ala Glu Ala Gly Val Asp Ala Ala Ser Val Ser Glu Glu Phe
      290   295   300
Arg Ala Asp His Pro Phe Leu Phe Cys Ile Lys His Ile Ala Thr Asn

```
        305                    310                    315                    320
Ala Val Leu Phe Phe Gly Arg Cys Val Ser Pro
                 325                    330
```

```
<210> 49
<211> 8
<212> PRT
<213> Gallus gallus
```

```
<400> 49
Ser Ile Ile Asn Phe Glu Lys Leu
 1               5
```

```
<210> 50
<211> 9
<212> PRT
<213> Homo sapien
```

```
<400> 50
Val Leu Gln Glu Leu Asn Val Thr Val
 1               5
```

```
<210> 51
<211> 9
<212> PRT
<213> Homo sapien
```

```
<400> 51
Tyr Leu Ser Gly Ala Asn Leu Asn Leu
 1               5
```

```
<210> 52
<211> 9
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> PCR Primer
```

```
<400> 52
Tyr Leu Ser Gly Ala Asp Leu Asn Leu
 1               5
```